Oakland International Airport
Runway Safety Area Improvements and Environmental Review

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PORT OF OAKLAND

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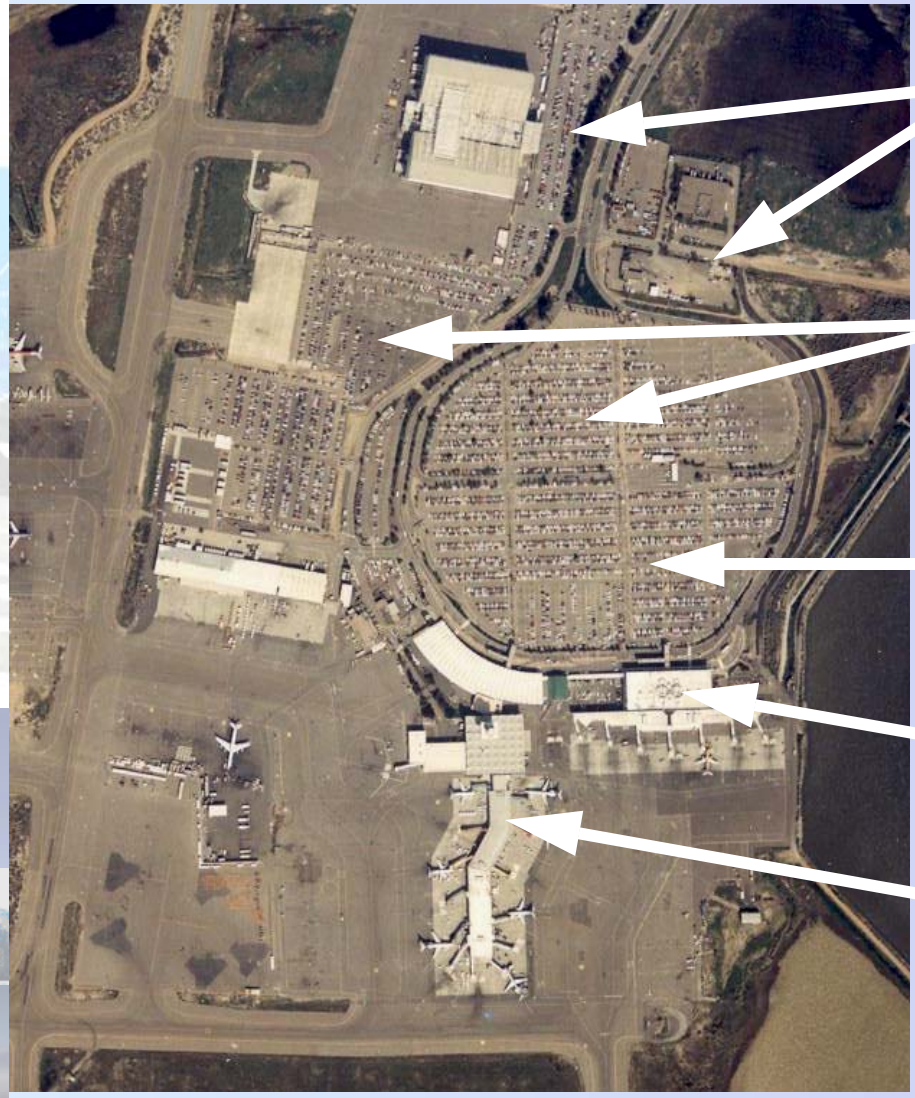
What are we going to cover today?

- Background on OAK
- Data and Statistics for OAK
- Description of RSA Study recently completed
- Alternatives recommended from RSA study
- Lessons learned from RSA Study
- Challenge ahead for environmental review of alternatives
- Workshop discussion of possible approaches to environmental review

OAK Overview

- Airline passenger facilities
  - ✈ Two terminals: 24 aircraft gates (630,435 pax/gate)
  - ✈ 8,600 on-Airport parking spaces (hourly, daily, economy and valet parking)
- Air cargo sort facilities
  - ✈ FedEx
  - ✈ DHL (Airborne Express)
  - ✈ United Parcel Service
  - ✈ U.S. Postal Service
- General aviation facilities
  - ✈ Executive terminals
  - ✈ Flight schools
  - ✈ Hangars

Oakland International Airport
South Field



Employee Parking

Daily (long-term) Parking

Hourly (short-term) Parking

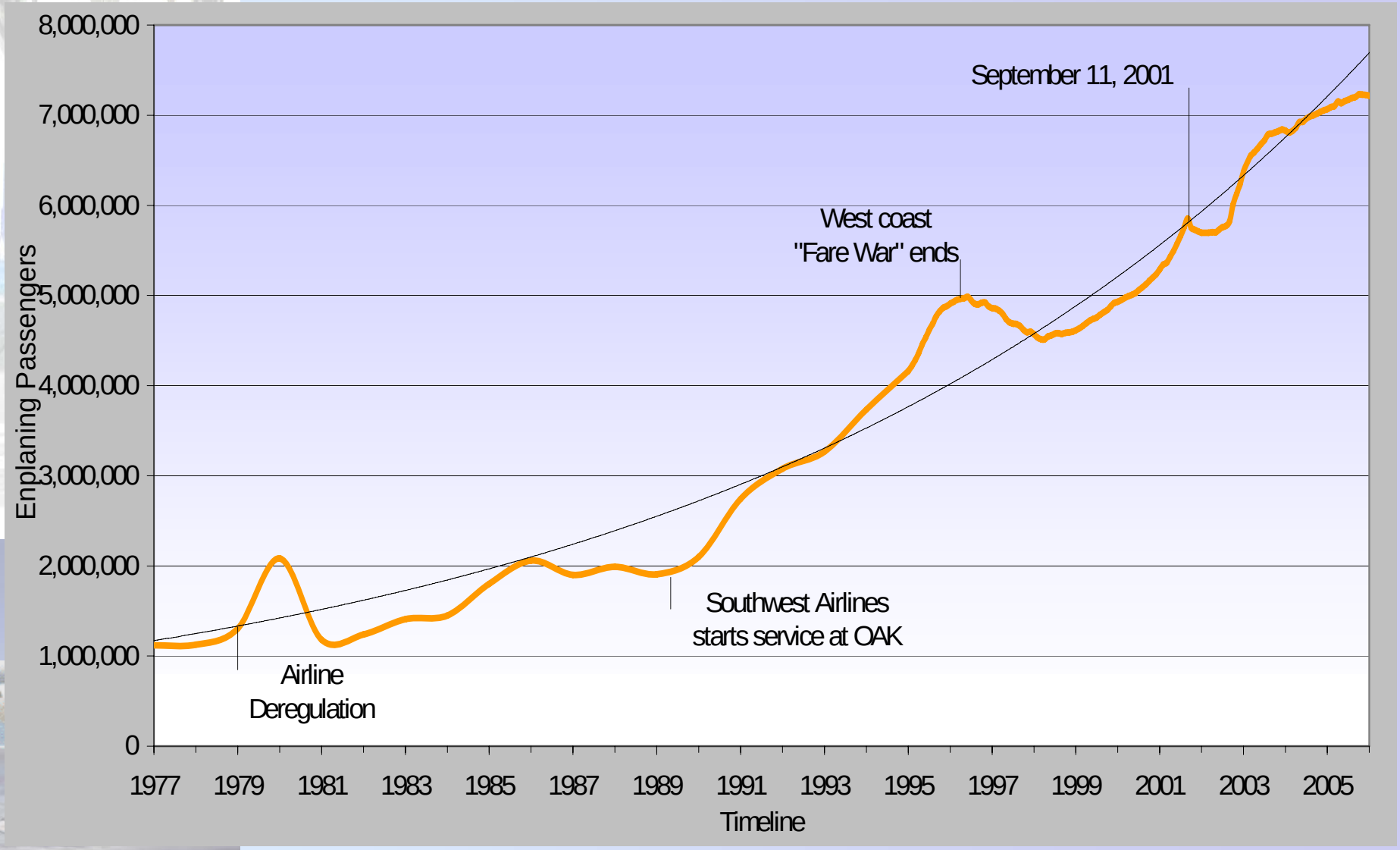
Terminal 2

Terminal 1

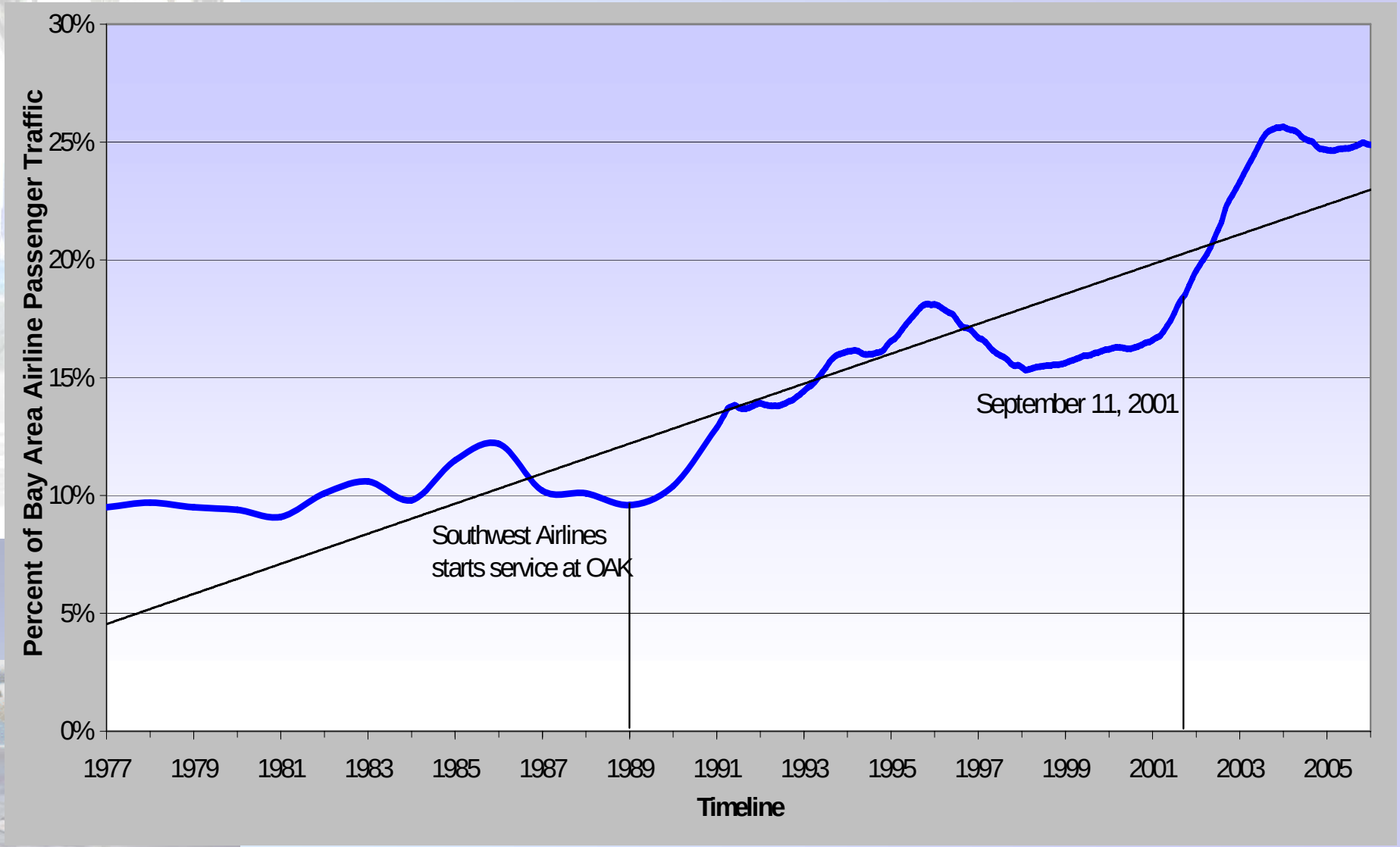
OAK is served by many scheduled and charter airlines

- ATA
- Alaska
- Aloha
- America West
- American
- Continental
- Delta/Delta Connection
- JetBlue
- Southwest
- United
- Azteca
- Mexicana

Passengers using OAK have increased more than 6% annually since 1977



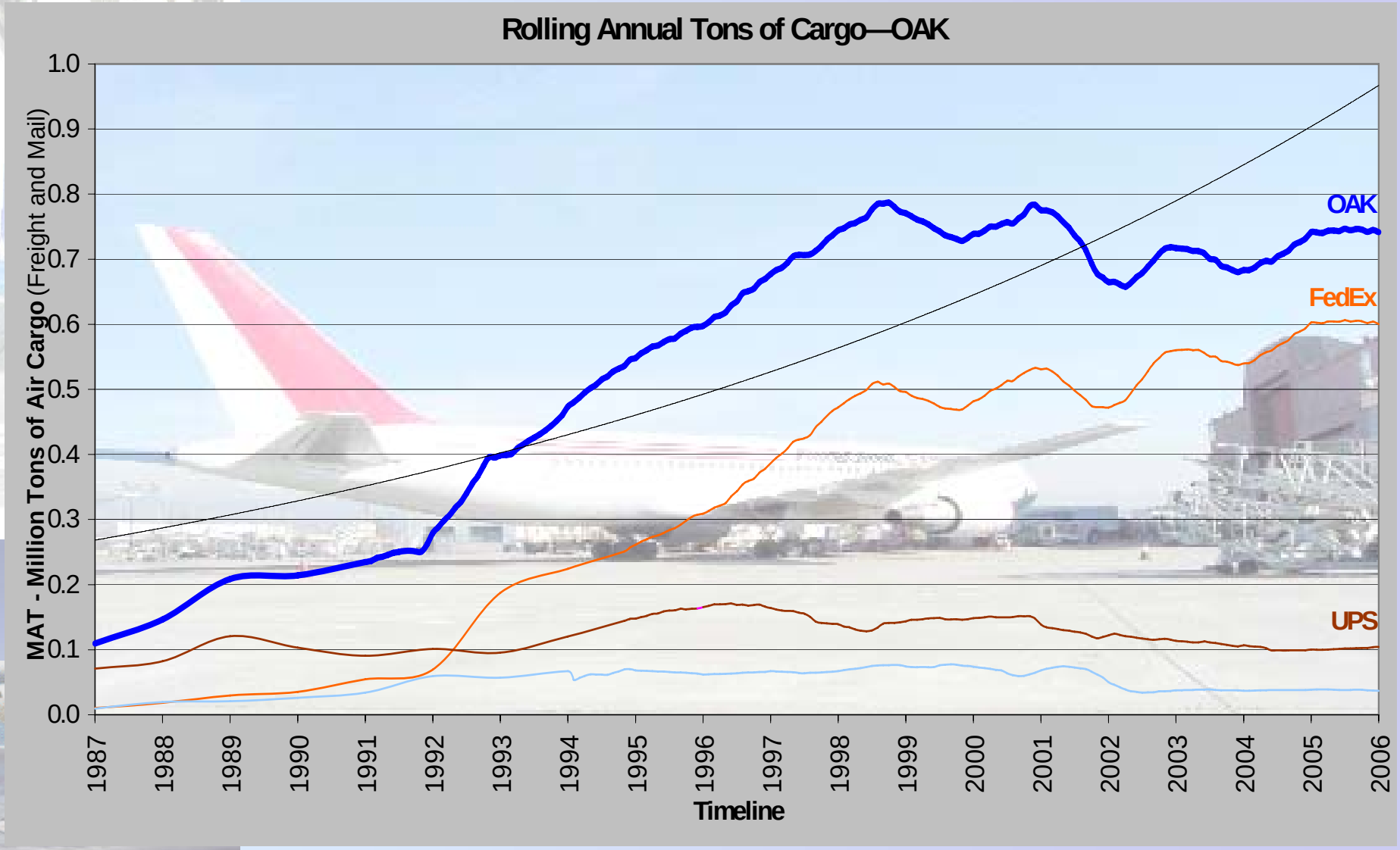
OAK serves an increasing percentage of passenger traffic in the Bay Area



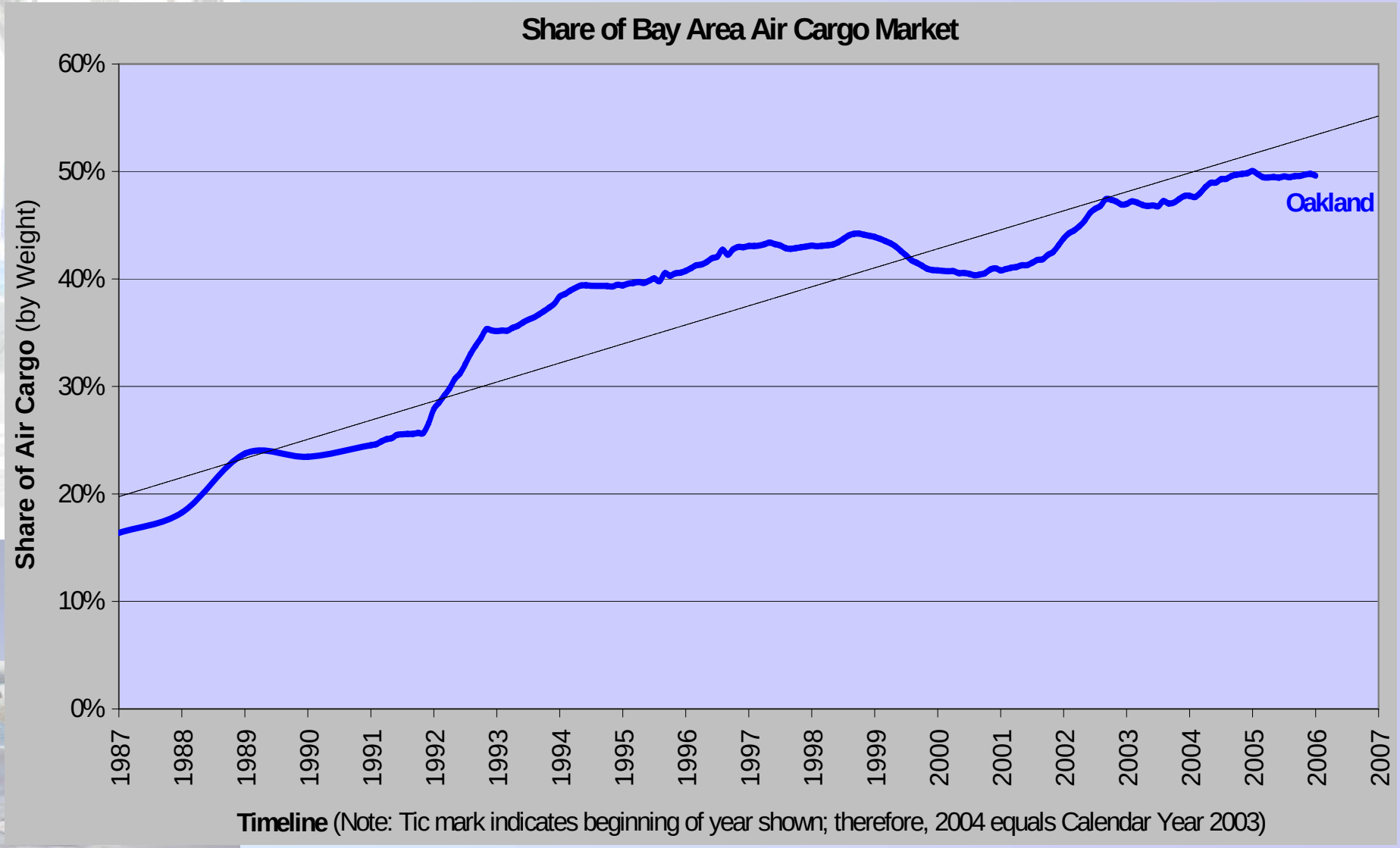
OAK is served by several air cargo carriers

- Ameriflight
- DHL (Airborne Express)
- FedEx
- United Parcel Service
- U.S. Postal Service

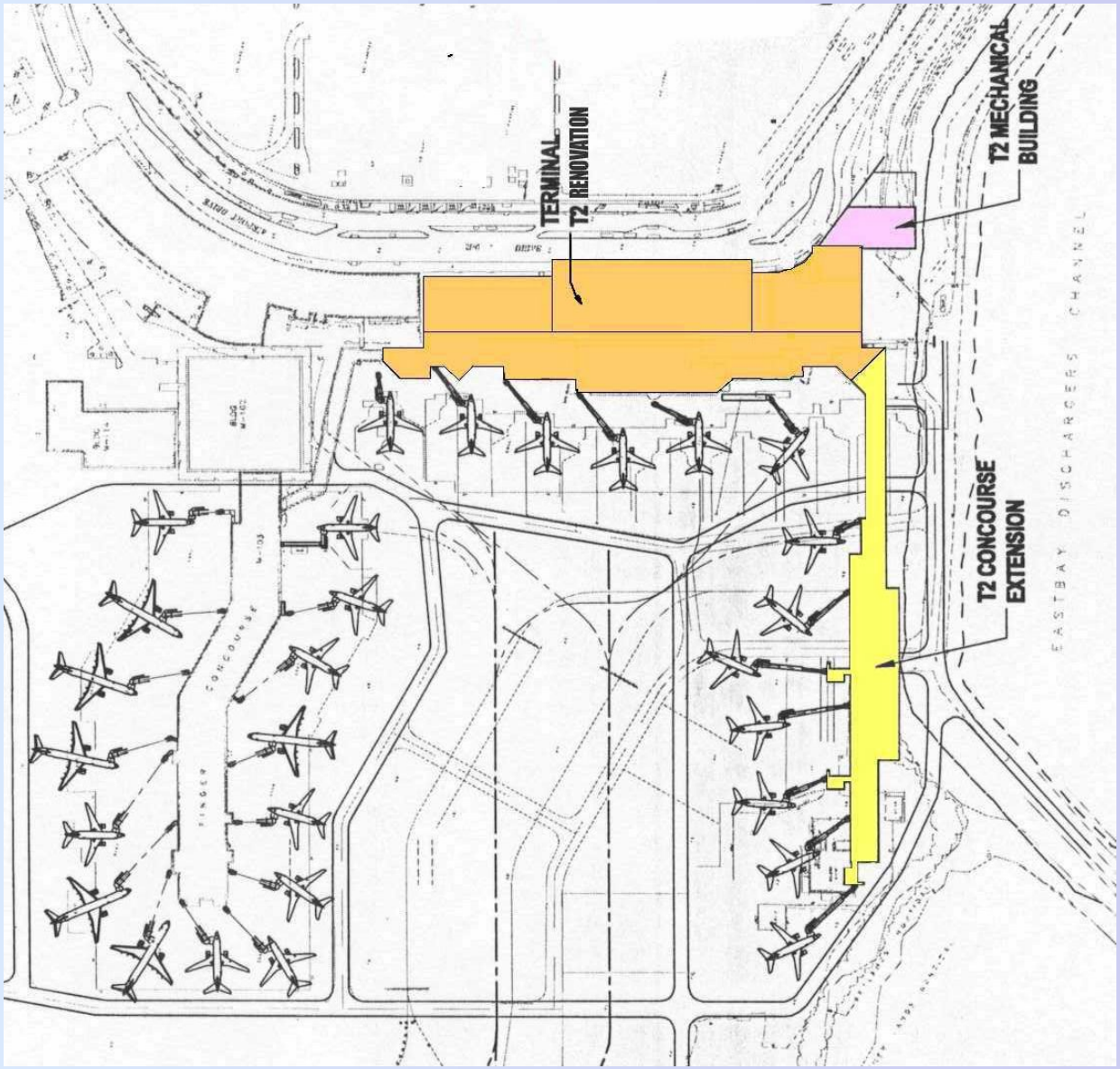
Tons of cargo carried through OAK has grown 7% annually since 1987



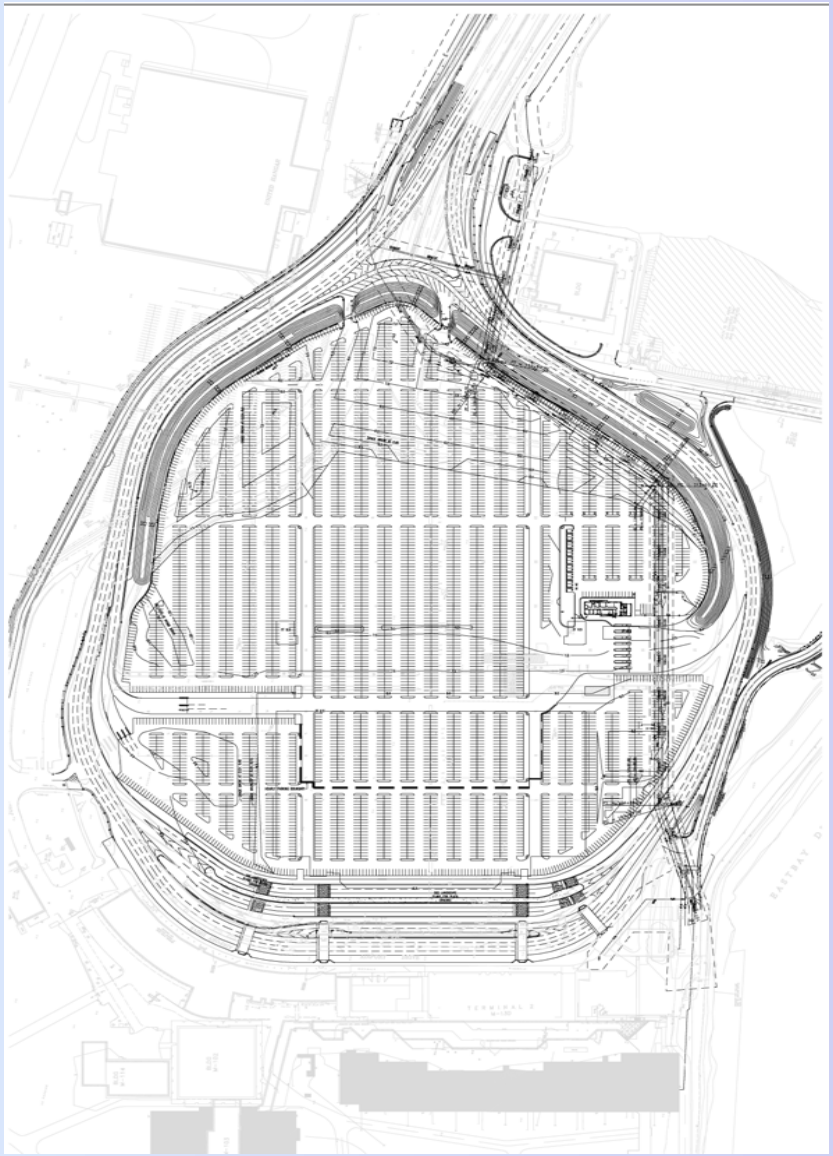
Nearly half of all air cargo in and out of the Bay Area passes through OAK



Terminal 2 Renovation & Extension



Loop Road and Curbside Reconstruction



Runway Safety Area Study

- AIP Funded ($375,000 total study cost)
- Identified existing conditions that do not meet FAA standards
- Prepared alternatives for improving the RSAs
- Identified the most feasible and practicable alternatives
- Used field surveys, aerials, wetland deliniations, and topographic data
- Followed FAA AC 150/5300-13 Airport Design, Order 5200.8 RSA Program, Order 5200.9 Financial Feasibility, AC 150/5220-22 EMAS
- Stakeholder Involvement

Determination: non-standard conditions on all runways

- Drainage deficiencies
- Uneven terrain
- Wetlands
- Access roads in RSA
- Non-frangible items
- Soft soils
- Water bodies
- Fences
- Rocks/debris
- Insufficient length

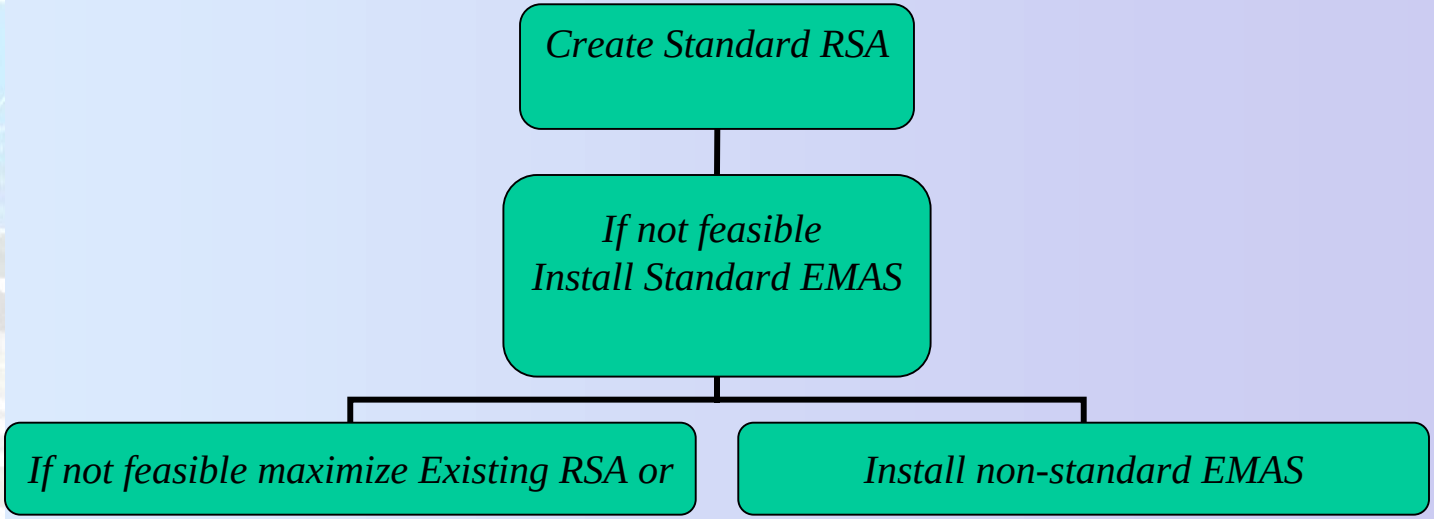
What makes Oakland Interesting?

- Wide range of deficiencies on multiple runways
- Sensitive environmental conditions (wetlands, avian habitat, salt marsh harvest mouse, brackish water snail, etc.)
- Environmental costs are a significant portion of costs
- Independence of alternatives, even within an alternative several separate projects

Early Environmental Considerations

- Consideration of environmental issues was essential from early on in the study as was constructability and related environmental effects
- Environmental considerations have a significant impact on feasibility and practicability (e.g. Runway 29 Bay fill for standard RSA)
- Least Environmentally Damaging Practicable Alternative
- Cost escalation considerations (location specific)

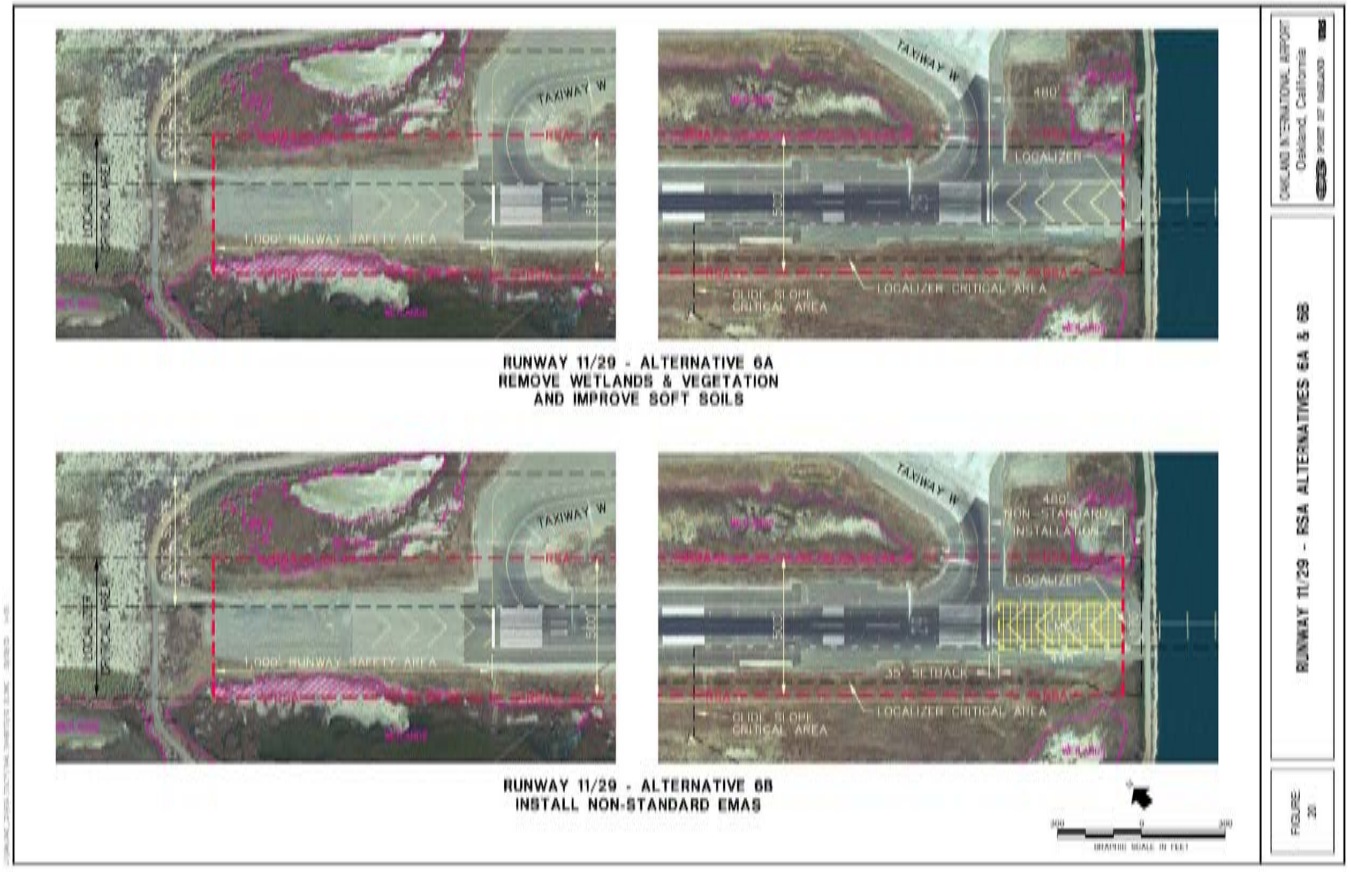
RSA Improvement Hierarchy



Runway 11/29 Recommended Alternative

- Filling wetlands (1.8 acres)
- Harding soils
- Installing non-standard EMAS (adjacent to Bay)
- Lifecycle costs $20.8 million
- BCDC, RWQCB, and COE permitting
- Alternative can be phased

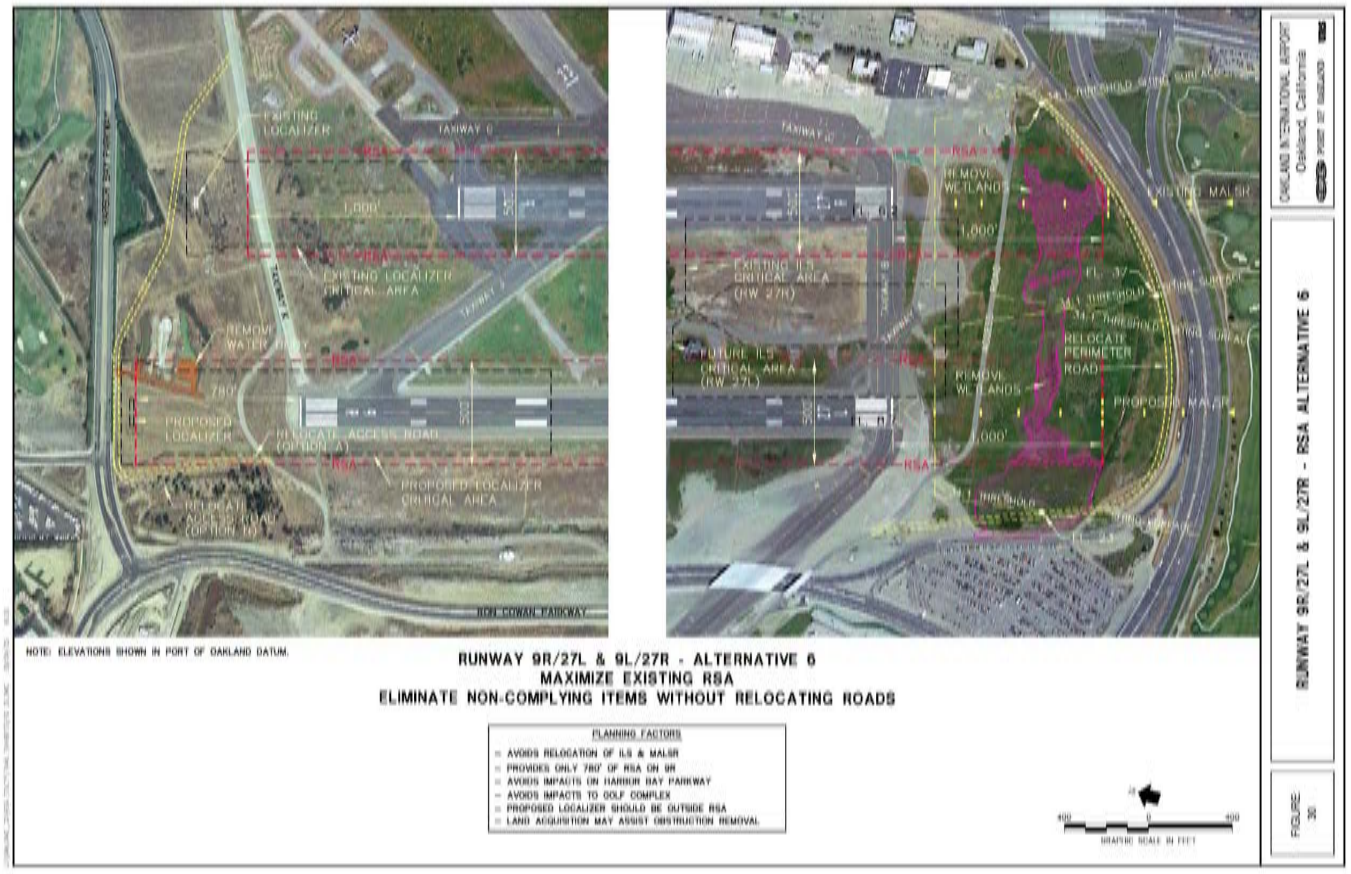
Runway 11/29 RSA Alternative 6



Runways 9R/27L and 9L/27R Recommended Alternative

- Relocating access roads (5.3 acres wetlands)
- Filling open waters (2 acres)
- Filling wetlands (4.5 acres in RSA)
- Hardening soils
- Re-grading
- May need to acquire property in adjacent community to relocate an access roadway
- Cost $25.7 million

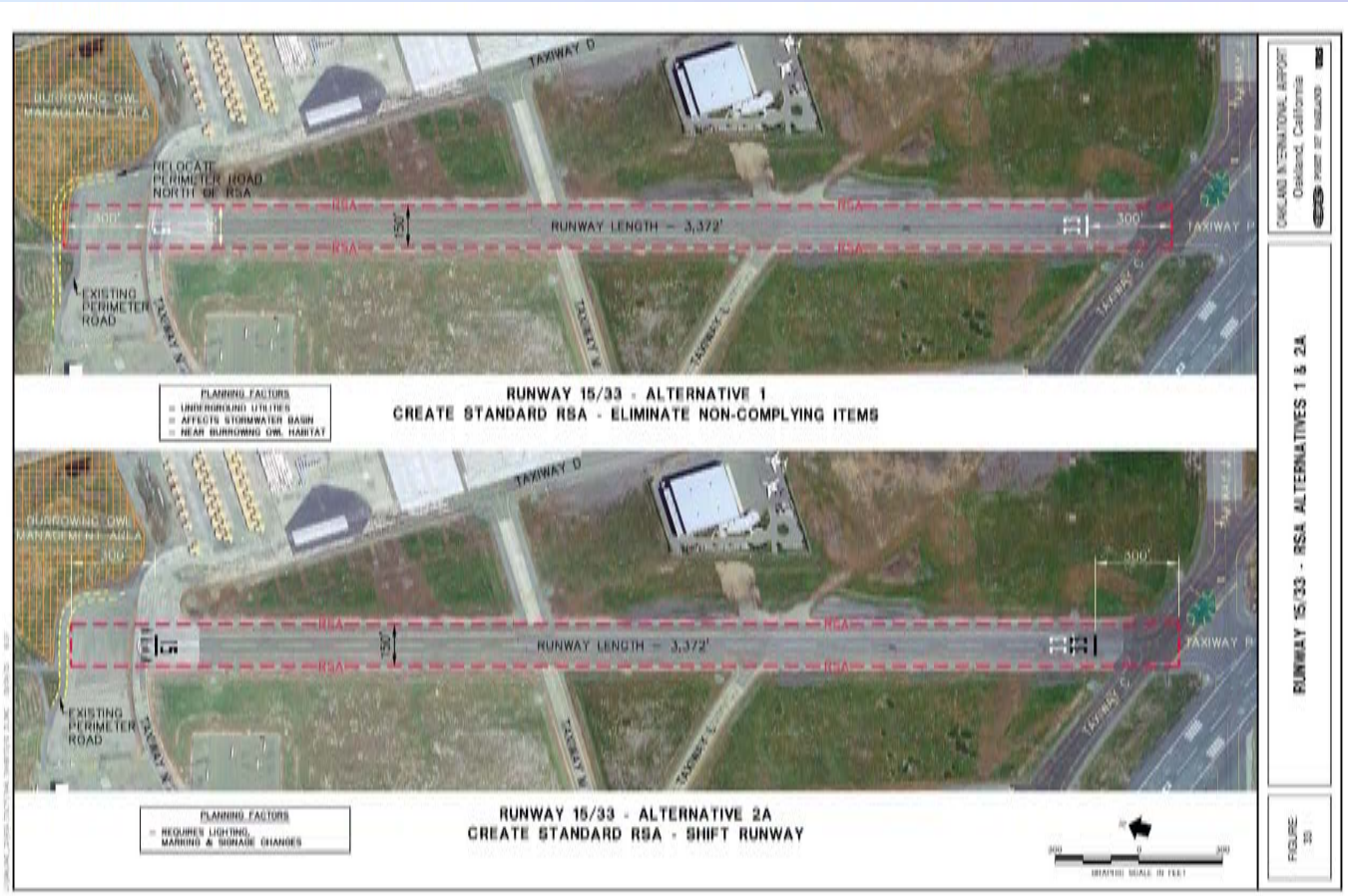
Runways 9R/27L and 9L/27R RSA Alternative 6



Runway 15/33 Recommended Alternative

- Shift runway 75 feet southeast by relocating thresholds
- Cost $332,000
- Limited or no environmental effects

Runway 15/33 RSA Alternative 2A



How should projects be evaluated?

- Must consider both CEQA and NEPA
- Are these four separate projects?
- Are theses seven or eight separate projects considering “phases”?
- Desire to move quickly on high priorities
- Should move quickly on less environmentally sensitive
- Argues for multiple documents of independent utility
- However…

How should projects be evaluated

- Environmental effects are of similar nature
- Mitigations will also be similar and likely more cost effective and efficient if overarching
- Same agencies will issue permits for similar impacts in adjacent locations and may argue for unified documents

You decide

- Should a joint CEQA/NEPA document be prepared?
- Should highest priority and least environmentally "impactful" proceed in advance?
- Should alternatives such as 11/29 Alt 6 be viewed as phases or separate projects?
- How broadly or narrowly should the Purpose and Need be described?
- What level of documents should be prepared?
- What alternatives should be reviewed?
- How should the cumulative impacts be handled?
- Stakeholder involvement considering approach adopted
- Can we get a nationwide permit in place with COE?

Questions and Discussion